

**RECOMMENDATION BY ICCAT ON THE BYCATCH OF SEA TURTLES
CAUGHT IN ASSOCIATION WITH ICCAT FISHERIES
(COMBINE, STREAMLINE, AND AMEND RECOMMENDATIONS 10-09 AND 13-11)**

RECALLING that the *Recommendation by ICCAT amending Recommendation 10-09 on the bycatch of sea turtles in ICCAT fisheries* (Rec. 13-11) stated that upon receipt of advice from the Standing Committee on Research and Statistics (SCRS), the Commission shall consider additional measures to mitigate sea turtle bycatch in ICCAT fisheries, if necessary;

RECOGNIZING that additional measures could be undertaken to reduce sea turtle bycatch and mortality in tuna fisheries;

CONSIDERING mortality from the incidental catch of sea turtles' species in relation to fishing activities may seriously affect sea turtles' populations within the Convention area;

RECOGNIZING that the SCRS and its Subcommittee on Ecosystems and Bycatch (SubComECO) have confirmed annual rates of bycatch and mortality of threatened and endangered sea turtles in some ICCAT longline fisheries, particularly in shallow-sets, and have recommended that the Commission consider adopting for shallow-set longline fisheries at least one of the following mitigation measures: (1) use of large circle hooks; (2) use of finfish bait; (3) other measures considered effective by the SCRS;

MOTIVATED BY recommendations made by the SCRS Subcommittee on Ecosystems and Bycatch, including in 2022, identifying that experimental and meta-data analyses indicate that large circle hooks are an effective measure to reduce sea turtle bycatch and could also increase post-release survival;

GUIDED BY the work undertaken throughout the world that has led to advancements in best practices and technologies such as, type of baits and large circle hooks to limit bycatch of sea turtles;

FURTHER RECALLING that the Report of ICCAT's Second Independent Performance Review supporting the recommendations of the SCRS Subcommittee on Ecosystems and Bycatch to adopt measures to reduce sea turtle bycatch such as the use of circle hooks;

TAKING INTO ACCOUNT the obligations of Contracting Parties, Cooperating non-Contracting Parties, Entities or Fishing Entities (hereafter referred to as CPCs) under the *Recommendation by ICCAT on information collection and harmonization of data on bycatch and discards in ICCAT fisheries* (Rec. 11-10) and the *Recommendation by ICCAT to establish minimum standards for fishing vessel scientific observer programs* (Rec. 16-14) to report their fisheries' interactions with sea turtles using the SCRS statistical form;

ACKNOWLEDGING the need to reduce the impacts of ICCAT fisheries on threatened and endangered sea turtle species within the Convention area;

FURTHER ACKNOWLEDGING the important role that fishermen can play to both avoid sea turtle interactions and minimize the adverse consequences of such interactions when they occur;

RECOGNIZING the threats that sea turtles face throughout their life cycle, both on sea and land, and the urgent need to reduce the impacts of ICCAT fisheries, in particular on endangered sea turtle species; and

NOTING that the mitigation measures in the General Fisheries Commission for the Mediterranean *Recommendation on the mitigation of fisheries impacts for the conservation of sea turtles* (GCFM/44/2021/14) become binding in 2026;

THE INTERNATIONAL COMMISSION FOR THE CONSERVATION
OF ATLANTIC TUNAS (ICCAT) RECOMMENDS THAT:

1. In order to reduce bycatch and increase post-release survival of threatened and endangered sea turtle populations within the Convention area:
 - a) CPCs with longline vessels that fish in a shallow-set manner¹ shall, while operating ICCAT fisheries, employ or implement at least one of the following methods:
 - i. Use of only large circle hooks²;
 - ii. Use of only finfish bait; or
 - iii. Use of [an] other measure[s] or approach[es] that [has] have been reviewed and considered effective by the SCRS and approved by the Commission to be capable of reducing the interaction rate of sea turtles in shallow set longline fisheries.
 - b) Any CPC that achieves and maintains 10% scientific observer coverage and complies with the data reporting requirements of Recs. 11-10, 16-14, and paragraph 6 below, may request from Paragraph 1 a) an exemption for one or more of its ICCAT fisheries above by submitting relevant scientific information to the SCRS. The SCRS will evaluate that information and advise the Commission on sea turtle interactions and mortality. The Commission shall make decisions on any requested exemption in light of the SCRS advice.
2. CPCs, while operating ICCAT fisheries, shall:
 - a) reduce and eliminate, to the extent practicable, interactions with sea turtles in ICCAT fisheries where encounters with sea turtles have been documented and reported to the SCRS, through the use or continued use of at least one of the following bycatch mitigation measures:
 - i. alternative or new gear types and gear modifications;
 - ii. time-area fishing restrictions and closures based on advice from the SCRS, as appropriate, in instances where there is a higher risk of interaction with sea turtles;
 - iii. effective static net gears' marking allowing their detection by sea turtles (such as the use of net colours, light passive reflectors, thicker twine diameter, corks or other materials within the net); or
 - iv. modifications in fishing behaviour and strategy (e.g., reduced soaking time, etc.).
 - b) require that their purse seine vessels avoid encircling sea turtles to the extent practicable, release encircled or entangled sea turtles, including on fish aggregating devices (FADs), where feasible, and ensure that FADs deployed in the ICCAT Convention area are constructed according to Annex 5 of ICCAT Recommendation 22-01 to effectively eliminate entanglement risks of sea turtles;
 - c) take all reasonable steps to ensure the safe release of sea turtles in a manner that maximizes the likelihood of their survival by requiring that:
 - i. their purse seine and longline vessels, and other types of vessels that use gear that may entangle sea turtles, carry on board de-hookers, line-cutters and basket lifts or dip nets, as appropriate for each gear type and consistent with the "Best practices for sea turtle handling and release" of the *FAO Guidelines to reduce sea turtle mortality in fishing operations* (2009³) ('the FAO guidelines');
 - ii. the owners, operators, and crew of such vessels, as well as any on-board observers, use such equipment in line with the safe handling and release practices in the **Appendix**, and consistent with the FAO Guidelines. In addition, owners, operators and crew should be encouraged to have training in the use of such equipment.

¹ Shallow-set fisheries are generally to be considered those in which the majority of hooks fish at depth shallower than 100 meters, as determined by the SCRS.

² Circle hooks are defined as a hook with the point turned perpendicularly back to the shank to form a generally circular or oval shape. CPCs should adopt the use of circle hooks with an offset of no more than 10 degrees.

³ <http://www.fao.org/docrep/012/i0725e/i0725e.pdf>

- d) require their fishermen on vessels targeting species covered by the Convention to bring aboard, if practicable, any captured sea turtle that is comatose or inactive as soon as possible and foster its recovery, including giving it resuscitation in accordance with the **Appendix**, before returning it to the water;
 - e) ensure that fishermen are aware of and use proper mitigation and handling techniques, as described in the **Appendix**.
3. CPCs shall endeavour to increase the scientific observer coverage of longline fishing vessels in ICCAT fisheries where encounters with sea turtles have been documented and reported to the SCRS, beyond the minimum level required in Rec. 16-14, to 10% by 1 January 2024. This increase may be achieved through human observers and/or Electronic Monitoring Systems (EMS). This paragraph shall be revised, as appropriate, after the adoption of minimum standards for EMS by ICCAT, based on advice from the SCRS and PWG. However, the alternative scientific monitoring approach referred to in paragraph 4 of Rec. 16-14 remains applicable for vessels under 15 meters in replacement of EMS or observers onboard.
 4. CPCs with deep-set longline, gillnet, and where appropriate, shallow-set longline fisheries are encouraged to undertake research trials aimed at mitigating bycatch and reducing bycatch mortality, and increasing post release survival of sea turtles. Research should also examine the effects of hook sizes and shapes, fishing depths, fishing areas, and seasons. CPCs shall report the results of this research (including the tradeoffs among catch rates of target and bycatch species) to the SCRS. Based on the results of such research, the SCRS shall advise the Commission on potential sea turtle mitigation measures for these fisheries.
 5. Consistent with the bycatch reporting obligations under Recs. 11-10 and 16-14, each CPC shall collect, and annually report to ICCAT information on their interactions with sea turtles in ICCAT fisheries. At a minimum, this information shall include:
 - a) date;
 - b) location (latitude, longitude);
 - c) fishing gear type;
 - d) species identification;
 - e) size (curved or straight carapace length) and/or weight;
 - f) capture and release condition (e.g., live/dead);
 - g) FAD type if applicable;
 - h) bait type if applicable;
 - i) hook type and size if applicable;
 - j) target fishing depth;
 - k) target species;
 - l) fishing mode (e.g., fishing on FOBs);
 - m) anatomical hooking location, if applicable (e.g., flipper, mouth/jaw, swallowed, entangled) if available;
 - n) nature of entanglement if available;
 - o) amount of gear left on the animal, if applicable (e.g., estimated length of line) if available;
 - p) any associated photographs subject to national laws on confidentiality.
 6.
 - a) Paragraphs 1-3 shall not apply to vessels operating only north of 55 degrees N or south of 35 degrees S latitude (i.e., primarily outside the geographic range of Atlantic sea turtles).
 - b) In the Mediterranean Sea,
 - i. Paragraph 1 shall not apply at this time.
 - ii. Paragraphs 2-3 shall not apply for the period 2023 through 2025.

The SCRS should review the appropriateness of the southern boundary of this range and advise the Commission in 2023.

7. In light of the potential impacts of climate change on ICCAT fisheries, including target stocks and bycatch species, the SCRS is requested to review periodically the provisions of this measure related to the spatio-temporal ecology of sea turtles, including their interactions and mortality associated with these fisheries.
8. In their Annual Reports to ICCAT, CPCs shall report on the steps they have taken to implement this Recommendation, including which option[s] specified in paragraph 1 a) and paragraph 2 a) is [are] being implemented by its vessels. CPCs that qualify for the exemption specified in paragraphs 1 b) and 6 shall notify the exemption to the ICCAT Secretariat by 1 July 2023, and report the exemption in their 2023 Annual Report. CPCs shall also report to the Commission on any change in how they implement Paragraphs 1 b) and 6 b).
9. The SCRS shall continue to review any new relevant information, with respect to the provisions of this measure, on sea turtle bycatch mitigation measures and advise the Commission no later than 2025 on their effectiveness and their impacts on other species, as appropriate. As part of this work the SCRS shall analyze scientific information regarding different circle hook sizes and their effectiveness at mitigating sea turtle bycatch (decreasing catch and increasing post-release survival) in longline fisheries (both shallow- and deep-set longline), including the impact on catch rates of other target and non-target species. The SCRS shall also develop indicators to assess the effectiveness of the mitigation measures detailed in this Recommendation. The SCRS shall provide relevant recommendations to the Commission based on the results of this analysis.
10. The SCRS shall assess available information on the use of time-area fishing restrictions and closures in areas where there is a higher risk of interaction with sea turtles, and advise the Commission, as appropriate.
11. Considering the particular situation of coastal developing CPCs, the special funds established in Rec. 14-14, Rec. 13-19, and Res. 03-21 should be strengthened through the allocation of funds, from voluntary contributions of CPCs and inclusion of specific budget lines, to facilitate the implementation of this Recommendation, including for training fishermen on safe handling and release, providing related equipment, or supporting trials for new mitigation techniques.
12. This recommendation repeals and replaces both the *Recommendation by ICCAT on the bycatch of sea turtles in ICCAT fisheries* (Rec. 10-09) and the *Recommendation by ICCAT amending Recommendation 10-09 on the bycatch of sea turtles in ICCAT fisheries* (Rec. 13-11).

Safe Handling and Release Practices for Sea Turtles**1. Purse seine safe handling and release**

- a) Whenever a sea turtle is sighted in the net, all reasonable efforts should be made to rescue the sea turtle before it becomes entangled in the net.
- b) No sea turtle shall be hauled from the water by a fishing line attached to, or entangled upon, the body of a sea turtle.
- c) If a sea turtle is entangled during net roll, the net roll should be stopped as soon as the turtle comes out of the water; the turtle should be disentangled without injuring it before resuming the net roll.
- d) If, in spite of the measures taken under paragraphs a and b of this section, a sea turtle is accidentally brought on board the vessel and is alive and active, or dead, the sea turtle should be released as quickly as practicable.
- e) If a sea turtle is brought aboard the vessel and is comatose or inactive, resuscitation should be attempted (paragraph 3).

2. Longline safe handling and release

- a) When practicable, and when operator or crew on board are trained, comatose sea turtles should be brought on board immediately.
- b) Upon sighting a sea turtle, the vessel and line reel speed should be slowed and the vessel direction adjusted to move toward the sea turtle, minimizing tension on the line.
- c) No sea turtle shall be hauled from the water by a fishing line attached to or entangled upon the body of a sea turtle.
- d) If a sea turtle is too large or hooked in such a manner as to preclude safe boarding without causing further damage/injury to the sea turtle, line clippers should be used to clip the line and remove as much line as possible prior to releasing the sea turtle.
- e) If a sea turtle is observed to be hooked or entangled by longline gear during hauling operations, the vessel operator should immediately cease hauling operations until the sea turtle has been removed from the longline gear or brought on board the vessel.
- f) If hooked externally or hook is fully visible, hooks shall be removed from sea turtles as quickly and carefully as possible. If a hook cannot be removed from a sea turtle (e.g., ingested or in roof of mouth), the line shall be cut as close to the hook as possible.
- g) Live sea turtles should be returned to the sea after handling:
 - i. By putting the vessel engine in neutral gear so that the propeller is disengaged and the vessel is stopped, and releasing the sea turtle away from deployed gear; and
 - ii. Observing that the sea turtle is safely away from the vessel before engaging the propeller and continuing operations.
- h) If the sea turtle brought aboard the vessel is comatose or inactive, resuscitation should be attempted (paragraph 3).

3. Resuscitation for a sea turtle on board

- a) When handling a sea turtle, attempts should be made to hold the animal by the shell, avoiding the head and neck region, and flippers.
- b) Strive to remove and/or disentangle any foreign items from the sea turtle, such as any plastic items, netting, or embedded hooks, etc.
- c) Placing the sea turtle on its bottom shell (plastron) so that the sea turtle is right side up, safely isolated and immobilized on a cushioned surface, such as an automobile tire without a rim, a boat cushion, or coil of rope. The primary purpose of the cushioned surface is to elevate the sea turtle from the deck to assist in restraining it. Elevate its hindquarters at least 6 inches (15 cm) for a period of 4 up to 24 hours. The amount of the elevation depends on the size of the turtle; greater elevations are needed for larger sea turtles. Periodically, rock the sea turtle gently left to right and right to left by holding the outer edge of the shell (carapace) and lifting one side about 3 inches (8 cm) then alternate to the other side. Gently touch the eye and pinch the tail (reflex test) periodically to see if there is a response.
- d) Sea turtles being resuscitated should be shaded and kept damp or moist but under no circumstance be placed into a container holding water. A water-soaked towel placed over the head, carapace, and flippers is the most effective method in keeping a sea turtle moist.
- e) Sea turtles that revive and become active should be released over the stern of the boat only when fishing gear is not in use (i.e., not actively being set or hauled), when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels.
- f) Sea turtles that fail to respond to the reflex test or fail to move within 4 hours (up to 24, if possible) shall be returned to the water in the same manner as that for actively moving sea turtles.